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*Addresses:* Jonathan C. Eames, Programme Manager, BirdLife International Vietnam Programme, 11 Lane 167, Tay Son, Dong Da, Hanoi, Vietnam. Charles Eames, 77 Stoughton Road, Oadby, Leicester LE2 4FQ, United Kingdom.

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## **First records, noteworthy observations and new distributional data for birds in Paraguay**

*by David R. Capper, Robert P. Clay, Alberto Madroño N., Juan Mazar Barnett, Ian J. Burfield, Estela Z. Esquivel, Corinne P. Kennedy, Mirna Perrens & Robert G. Pople*

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The Río Paraguay divides Paraguay into two distinct regions. The relatively flat Chaco in the west is characterised by seasonally flooded palm savannas in the south-east, semi-arid thorn scrub forest in the west, and subhumid forests in the north-east. The Oriente in the east combines several distinct ecosystems and its avifauna is correspondingly diverse (Hayes 1995): cerrado in the north, natural grasslands and marshes in the south and humid Interior Atlantic Forest in the east.

From July to December 1997 we carried out ornithological fieldwork in a variety of habitats at three sites in the Chaco and three in the Oriente. Our work focused on two of the seven geographical regions identified by Hayes (1995): Matogrosense in the Chaco, and Central Paraguay in the Oriente. Additional short spells of fieldwork were conducted at sites in the Alto Chaco and Alto Paraná regions. Noteworthy records from additional fieldwork conducted by AMN and RPC are also included, as are a few observations from 1994-95, omitted from previous publications (e.g. Lowen *et al.* 1997a,b; Madroño N. & Esquivel 1997). From these surveys we present noteworthy observations on 30 species.

## Site details

In Matogrosense we worked at Estancia 42 (= Campo Limon), 35 km north-west of Puerto Bahía Negra, from 5-12 September 1997. Although the region is characterised by subhumid, medium-height forest (10-20 m), within the estancia few areas remained with a closed canopy above 10-15 m. We surveyed the Río Paraguay north of Concepción from 2-4 September and the Río Negro on 14 September, and conducted additional observations in the vicinity of Puerto Bahía Negra on 5 and 12-16 September 1997. This area of extensive wetlands forms part of the Pantanal with adjacent Brazil and Bolivia. Although palm savannas are present along the river, these are more extensive further south.

In Central Paraguay we worked at Aguará Ñu, Reserva Natural del Bosque Mbaracayú, Dpto. Canindeyú from 24 July to 20 December 1997 and Reserva Natural Privada Tapytá, Dpto. Caazapá from 25 October to 1 November 1997. Aguará Ñu is a c.5,500 ha. low plateau of cerrado-type vegetation on the eastern edge of one of the largest remaining blocks of Interior Atlantic Forest in Paraguay. It consists mainly of "Yata'i" palm (*Butia paraguayensis*) savanna and *campo sujo* grassland. A more detailed site description of Aguará Ñu appears in Lowen *et al.* (1996). Tapytá consists of rolling *campo sujo* and *campo limpo* grasslands, interspersed with low, seasonally wet grasslands and marshes, and surrounded by Interior Atlantic Forest. The gallery



Figure 1. Map showing localities of all sites mentioned in text. Numbers refer to site locations in Appendix 1.

forests along the Arroyo Tayay that runs through Tapytá form the only remaining forested connection between Parque Nacional Caaguazú and Parque Nacional San Rafael (Madroño, N. *et al.* 1997a,b).

Additional short spells of fieldwork were conducted at two sites in the Alto Chaco region, and at one site in the Alto Paraná region. In the Chaco, we conducted fieldwork at Estancia Campo Grande and Estancia Kamba Aka, close to the Bolivian border, c.80 km north-west of Puerto Bahía Negra. These sites are at the eastern limit of the Alto Chaco region, in the transition zone with Matogrosense. The vegetation cover is a 'monte alto', a taller xerophytic thorn scrub with more mesophytic elements than is typical of the Alto Chaco. At Estancia Campo Grande the forest cover was broken by extensive areas of grassland and some palm savanna. In the Alto Paraná region fieldwork was conducted at Reserva Natural Privada Ypetí, which protects a 10,000 ha tract of Atlantic Forest and wetlands bordering the Río Monday within Estancia La Golondrina, Dpto. Caazapá. Further details of this site are provided in Lowen *et al.* (1996). The geographical locations of all sites are given in Appendix I and plotted on Fig. 1.

### Definitions, abbreviations and conventions

We define the parameters of this paper as follows: (a) first country records; (b) species whose occurrence in Paraguay is treated as 'hypothetical' by Hayes (1995); (c) first reliable records for the Oriente or the Chaco; (d) first observations in geographical regions within Paraguay. Our records are categorised according to Hayes (1995) and subsequent publications (e.g. Lowen *et al.* 1997a, Ericson & Amarilla 1997) are cited where relevant.

Where possible, records were formally documented (e.g. good quality photograph or tape-recording) and this is indicated in the text. No specimens were taken. We distinguish single and multi-observer records, listing up to three observers in alphabetical order. Authors are indicated by their initials; other observers are named in full. We use '*et al.*' to indicate that more than three observers were involved. All sight/aural records are supported by extensive field notes. For mist-netted birds, full biometric data and a blood sample were taken before being photographed and released. Photographs and biometrics are available from the authors. Blood samples have been deposited with the Centre for Tropical Biodiversity, Copenhagen. Unless otherwise stated, tape-recordings have been deposited at the National Sound Archive, Wildlife Section, London. Photographs have been archived at the BirdLife International Secretariat in Cambridge, U. K.

Taxonomy and nomenclature follow Clements (1991, 1994) for non-passerines and Ridgely & Tudor (1989, 1994) for passerines. In each account, we give the species' global status (if listed in Collar *et al.* 1994) and its status in Paraguay (according to Hayes 1995). We follow this with our records and summarise their significance. In certain cases, we include a brief discussion of status or identification features. Appendix I lists co-ordinates of all localities mentioned. All sites are at a low altitude (100-300 m). Certain abbreviations are used throughout the text. These are: Dpto. -



Departamento (Department); RNBM - Reserva Natural del Bosque Mbaracayú (Mbaracayú Forest Nature Reserve); PN - Parque Nacional (National Park); RNP - Reserva Natural Privada (Private Nature Reserve); RB - Refugio Biológico (Biological Refuge); RVS - Refugio de Vida Silvestre (Wildlife Refuge).

## Species accounts

### **TATAUPA TINAMOU** *Crypturellus tataupa*

Reported as 'common' in all geographical regions of Paraguay except the Alto Chaco ('uncommon') and Matogrosense (not listed) (Hayes (1995). We recorded the first observations of this species for the Matogrosense geographical region. Several were heard at Puerto María Auxiliadora, Dpto. Alto Paraguay on 5-6 July 1993 (AMN). In addition, one was heard on 7 September and two on 11 September 1997 at Estancia 42 (DRC, RPC). All were calling from dense understorey in medium height subhumid forest. As predicted by Hayes (1995: 140), further fieldwork in the Matogrosense region has resulted in new records of ground-dwelling non-passerines (e.g. Ericson & Amarilla 1997).

### **UNDULATED TINAMOU** *Crypturellus undulatus*

*Crypturellus undulatus* is listed for the Central Paraguay, Campos Cerrados, Bajo Chaco and Matogrosense regions (Hayes 1995). Several *C. undulatus* calling at Estancia Trébol, Dpto. Alto Paraguay on 25 June 1993 (AMN) are the first records for the Alto Chaco region. These birds were heard in dense xerophytic thorn scrub, with some mesophytic elements more typical of habitat closer to the Río Paraguay.

### **GREEN IBIS** *Mesembrinibis cayennensis*

Listed as 'rare' in all geographical regions except the Alto Chaco (not listed) (Hayes 1995). However, there are only three records for the Chaco (1938, 1939 and 1990), and Hayes (1995: 45) discussed in detail his reasons for treating the locality of the 1939 specimen as doubtful. A single seen, and a second heard on 16 September 1997 in a small marsh at the edge of deciduous medium-height thorn scrub-forest at Estancia Campo Grande (RPC) constitute the first record for the Alto Chaco region and the third or fourth for the Chaco. Although probably more common in the Oriente, this species clearly occurs at very low densities throughout much of Paraguay (Hayes 1995).

### **WHITE-FACED WHISTLING-DUCK** *Dendrocygna viduata*

Hayes (1995) listed *Dendrocygna viduata* as occurring in all geographical regions except Alto Paraná. However, there are recent sightings from at least three sites in this region. At RNP Ypetí, Dpto. Caazapá, 59 *D. viduata* were seen on 10 July 1994 (L. Bartrina, R. Villalba). There have been two subsequent records: one seen on 5 December 1995 (RPC) and a minimum of three on 1 October 1997 (RPC). Anon. (1993) listed the species as common in the Itakyry area, Dpto. Alto Paraná, and Pérez & Colmán (1995) documented two records of this species at RB Mbaracayú, Dpto. Canindeyú.

**PLUMBEOUS KITE** *Ictinia plumbea*

A northern austral migrant that breeds in Paraguay but is absent in the austral winter (Hayes *et al.* 1994) and listed for all geographical regions except Matogrosense (Hayes 1995). Single birds were observed in the Matogrosense region on 4 September 1997 near Km 1,200 on the Río Paraguay, Dpto. Alto Paraguay (RPC, DRC), and on 7 September 1997 at Estancia 42 (RPC). The bird on 7 September was with three Swallow-tailed Kites *Elanoides forficatus* (see below).

**SWALLOW-TAILED KITE** *Elanoides forficatus*

Hayes (1995) only listed this northern austral migrant for the Oriente. We recorded it on four occasions in the Matogrosense region: four birds at Fuerte Olimpo on 4 September 1997 (RPC, RGP); three to the north of Fuerte Olimpo on 4 September 1997 (IJB, DRC); three on 7 September 1997 at Estancia 42 (RPC); and a further bird at Puerto Bahía Negra on 12 September 1997 (DRC *et al.*), all Dpto. Alto Paraguay. These are the first records for the Chaco and all presumably refer to birds migrating south.

**GREY-BELLIED GOSHAWK** *Accipter poliogaster*

Near-threatened (Collar *et al.* 1994). There are ten records of *Accipter poliogaster* for Paraguay, six before 1938 and four more recently (F. E. Hayes *in litt.* 1996, Lowen *et al.* 1996, 1997a). The more recent records are all from RNP Itabó, Dpto. Canindeyú in October 1995 and are presumed to refer to the same two birds (Lowen *et al.* 1996, 1997a). Additionally, Anon. (1993) listed the species as rare in two reserves managed by Itaipú Binacional (RB Limoy and RB Itabó, both Dpto. Alto Paraná) in the Alto Paraná region. At RNP Tapytá, an adult male was seen well in flight and perched in Interior Atlantic Forest on 25 October 1997 (DRC). This is the first observation of this species in the Central Paraguay region, and suggests that a small population of this low-density raptor may exist in the forest complex comprising PN San Rafael, PN Caaguazú and PNR Tapytá in south-east Paraguay.

**ASH-THROATED CRAKE** *Porzana albicollis*

Hayes (1995) listed this species for four regions, all in eastern Paraguay. *P. albicollis* was recorded in small numbers on 6-9 November 1995 at Estancia La Golondrina, Dpto. Presidente Hayes (JMB, B. López Lanús, J. C. Lowen, M. Pearman and MP). These are the first records for both the Bajo Chaco region and the Paraguayan Chaco. Although the species is apparently common in wetlands close to the Río Paraguay, it is presumably absent from the drier parts of the Chaco.

**GREEN-CHEEKED PARAKEET** *Pyrrhura molinae*

Two questionable or uncertain records exist for Paraguay: a specimen without locality, and a sight record 50 km west of Ciudad del Este, Dpto. Alto Paraná. However, Hayes (1995: 128) discussed in detail his reasons for treating the occurrence of *P. molinae* in Paraguay as 'hypothetical'. Certainly the sight record in Dpto. Alto Paraná is far from the species' known range and seems likely to refer to either escaped cagebirds or

confusion with Reddish-bellied Parakeet *P. frontalis*. At Estancia 42, we observed small flocks of up to five birds daily, flying over medium-height subhumid forest and perched in treetops (DRC *et al.*). On 16 September 1997 small flocks of *P. molinae* were recorded twice in thorn scrub-forest c.75 km north-west of Puerto Bahía Negra, Dpto. Alto Paraguay (RPC *et al.*). These birds represent the first records from a specified locality in Paraguay which is close to the species' known range (Forshaw 1989, Hayes 1995).

All *P. molinae* seen well showed all-green upperparts apart from a brown forehead and crown, and blue primary coverts and outer web to the primaries. The brown of the crown extended down to the eyes and ear-coverts, though the latter were a paler, more greyish-brown. There was a quite indistinct and restricted area of green on the cheeks. The sides of the neck, throat and breast were light beige with each feather tipped brown, giving a barred appearance. The rest of the underparts were green apart from a few reddish spots on the belly centre. Upper- and undertail were brownish-red, with the base of each feather greenish. This description clearly eliminates the two possible confusion species known to occur in Paraguay (Blaze-winged Parakeet *P. devillei* and *P. frontalis*), and most closely resembles the subspecies *P. molinae sordida*. This subspecies occurs in southern Mato Grosso, Brazil and easternmost Bolivia, and is the most likely to occur in the Matogrosense region of Paraguay (Forshaw 1989, del Hoyo *et al.* 1997).

#### **PEARLY-BREASTED CUCKOO** *Coccyzus euleri*

A single *C. euleri* seen on 11 January 1996, and a pair on 28 October 1996 (AMN) in tall humid subtropical forest in the 'Bosque Encantado' (c.2 km east of Jejui-mi within the RNBM, Dpto. Canindeyú) are the first documented records of this species for Paraguay. All birds clearly lacked the rufous in the wing that is characteristic of the otherwise very similar (but not yet recorded from RNBM) Yellow-billed Cuckoo *C. americanus*. The pair seen on 28 October 1996 were observed to copulate (one bird approaching the other with a small twig prior to copulation), suggesting local breeding. A more detailed description of the habitat is provided in Madroño, N. & Esquivel (1997) and a tape-recording deposited at Library of Natural Sounds, Cornell Laboratory of Ornithology has yet to receive a recording number. Further sightings of *Coccyzus* cuckoos on 17 August 1995 and 19 October 1996 (AMN) were either *C. euleri* or *americanus*.

#### **LITTLE CUCKOO** *Piaya minuta*

Hayes (1995) did not list *Piaya minuta* for Paraguay and, according to Armonía (1995), it does not occur in either of the two Bolivian lifezones immediately to the north of Paraguay (Cerrado/Bosque Chiquitano and Chaco). The nearest known populations are in the Amazonia lifezone in the northern half of Bolivia (Armonía 1995), and Mato Grosso and Goiás in west-central Brazil (Sick 1993). On 14 September 1997, two closely associating *P. minuta* (presumably a pair) were seen in riverside scrub on the eastern bank of the Río Negro, Dpto. Santa Cruz, c.0.5 km north of its mouth into the Río Paraguay (RPC *et al.*). Both birds were seen well and photographed



(see Clay *et al.* 1998). Although this locality lies within Bolivia, many sections of the Río Negro are not very wide (<50 m), the habitat is similar on both banks, and it seems very likely that *P. minuta* also occurs in Paraguay. Notwithstanding, this record at the extreme south-eastern tip of Bolivia represents a notable in-country range extension.

#### **PAVONINE CUCKOO** *Dromococcyx pavoninus*

There is only one previous record of this species for the Paraguayan Chaco (Hayes 1995, Steinbacher 1962). At Estancia 42, at least three birds were calling (and tape-recorded) daily at dawn between 6-12 September 1997 (RPC *et al.*). All records referred to the distinctive whistled song 'eu e eu eu' of *D. pavoninus*, which is higher-pitched and lacks the terminal tremolo of the otherwise similar song of Pheasant Cuckoo *D. phasianellus*. These are the first records for Matogrosense and suggest the species is relatively common at least in the north of the region.

#### **GREAT POTOO** *Nyctibius grandis*

On 16 September 1997 we found and photographed a brooding *Nyctibius grandis* in a narrow corridor of deciduous thorn scrub-forest surrounded by natural grasslands at Estancia Campo Grande (MP *et al.*). Although mapped for Paraguay by Cleere & Nursey (1998), this species has never previously been reported in the country (Hayes 1995). However, it is known to occur rarely in adjacent Mato Grosso do Sul, Brazil (Cintra & Yamashita 1990, Parker *et al.* 1993), only 150 km to the north-east. The bird was a typical pale individual of this species: very bulky; a large, full, square ended tail, with a short projection beyond the wing tips; plumage lacked any warm tones, without a dark cap or malar stripe; finely barred underparts; dusky tail bars sharply bordered black on a greyish-white background. A photograph appears in Clay *et al.* (1998).

The nest was 7 m high in a tree within the scrub-forest (tree height: 10 m), c.5 m off the track. The nest tree was one of the tallest in the area, emerging c.2 m above the canopy. The bird was brooding a single large white egg, placed in the depression left by a broken branch immediately adjacent to the main trunk.

#### **BAND-TAILED NIGHTHAWK** *Nyctiprogne leucopyga*

Listed by Contreras *et al.* (1990) for Paraguay, and the country is included within its range in general works such as Parker *et al.* (1996). However, Hayes (1995) did not include *N. leucopyga* in the Paraguayan avifauna due to an absence of published evidence. On 4 September 1997, a flock of c.50 were seen feeding at dusk over riverside vegetation near Km 1,205 on the Río Paraguay, Dpto. Alto Paraguay, c.35 km south of Puerto Bahía Negra by river (RPC *et al.*). The species was later recorded in flocks of up to 40 birds at dusk in Puerto Bahía Negra, 12-15 September (RPC *et al.*). All birds seemed to originate from the Brazilian side of the Río Paraguay. Several were observed returning to the Brazilian side of the river at dawn on 14 and 16 September. On 14 September birds were seen to feed over marshes on the Brazilian side to the north of Puerto Bahía Negra.

All records at dusk involved groups of birds which subsequently dispersed, but

all dawn observations were of single birds, sometimes foraging with Nacunda Nighthawk *Podager nacunda*. It seems likely that *N. leucopyga* roosts communally (as described by Cherrie 1916) on the Brazilian side of the Río Paraguay, flying to the Paraguayan side to feed at dusk. Birds then disperse, returning independently to roost sites.

All birds conformed to the following general description: a small dark nighthawk with an inconspicuous white band across the middle of the underside of the tail, visible on the upperside as a small white spot on the outer web of the outer rectrices; tail quite long with prominent notch; wings all dark, long and slender; underparts prominently barred dark brown and pale; rarely visible white malar stripe. Flight was rapid and erratic, with stiff, shallow wing beats; wings held in a 'V' when gliding. Most birds seen were foraging at a height of 5-10 m, but flew lower over open habitats. Occasionally birds were heard to call: a single, low, guttural 'churk', and once a triple-noted 'churk churk weur'.

We recorded *N. leucopyga* in good numbers whenever we were close to the Río Paraguay at dusk or dawn, and it seems likely that it is a common inhabitant of the northern Matogrosense region. We did not record the species away from the Río Paraguay despite fairly extensive nocturnal survey work. This suggests that it is restricted to the extensive marshes bordering the larger rivers on the eastern boundary of the region.

A specimen of *N. leucopyga* collected on 25 September 1909 (BMNH catalogue no.: 1910.7.9.143) at "Porto Esperança, Alto Paraguay" refers to the Brazilian Porto Esperança, Mato Grosso do Sul (Grant 1911), rather than either Puerto Esperanza or Puerto La Esperanza, both Dpto. Alto Paraguay, Paraguay (*contra* Cleere & Nurney 1998). Porto Esperança lies 100 km north-east of Puerto Bahía Negra, and thus *N. leucopyga* is clearly not a recent immigrant to the region. Unless it is only a seasonal visitor here, it has been overlooked during previous work in the area (e.g. Hayes *et al.* 1990). This is perhaps due to its nocturnal habits or birds (apparently) roosting in Brazil.

### **RUFOUS NIGHTJAR** *Caprimulgus rufus*

*Caprimulgus rufus* is an uncommon breeding resident in the Oriente. Although mapped for the Chaco by Cleere & Nurney (1998), in Paraguay, it has not been recorded further west than 10-20 km east of the Río Paraguay (Hayes 1995, Laubmann 1940). At dawn on 7-8 September 1997, a single *C. rufus* was calling at Estancia 42 (DRC, RPC). These are the first reports of the species for the Paraguayan Chaco. This species occurs in the adjacent regions of Bolivia (Armonía 1995) and its presence in this more humid region of the Chaco was to be expected.

### **BISCUTATE SWIFT** *Streptoprocne biscutata*

This species was listed by Contreras *et al.* (1990) as occurring in Paraguay, but was not included in the Paraguayan avifauna by Hayes (1995) due to a lack of published evidence or specimen records. On 26 November 1997 a single *Streptoprocne biscutata* was seen flying low to the north at Aguará Ñu, RNBM (RPC). The bird was easily



differentiated from White-collared Swift *S. zonaris* by the two distinct white patches on the nape and throat (clearly separated on the sides of the neck) and by a slightly rounded tail. It also appeared slightly smaller, and perhaps slimmer winged than *S. zonaris*. From 21-30 November there was a marked movement/congregation of swifts at Aguara Ñu, involving three species besides *S. biscutata* - *S. zonaris*, Great Dusky Swift *Cypseloides senex* and Sooty Swift *C. fumigatus*. There are few records of these swifts from RNBM and nearly all probably relate to poor-weather or post-breeding dispersal movements.

#### **LINEATED WOODPECKER** *Dryocopus lineatus*

Hayes (1995) listed only two confirmed records for the Chaco, both in the Bajo Chaco region, and considered *Dryocopus lineatus* 'hypothetical' in Matogrosense. Hayes (1995: 45) discussed in detail his reasons for treating a specimen collected in 1939, 235 km west of Riacho (Río) Negro as doubtful. This locality almost certainly lies in western Dpto. Presidente Hayes, in the Bajo Chaco region. (Hayes 1995) and the reasoning for listing it as 'hypothetical' in Matogrosense is unclear. At Estancia 42, we recorded it on 6-7, 9 and 12 September 1997 with a minimum of three birds drumming (RPC *et al.*). All birds were seen and heard in thorn scrub-forest. A sighting of a single male in deciduous thorn scrub-forest at Estancia Kamba Aka on 16 September 1997 (RPC) is the first record for the Alto Chaco region.

#### **RUFOUS-WINGED ANTSHRIKE** *Thamnophilus torquatus*

Occurs locally in cerrado, cerradão and marshy tangles in eastern and central Brazil and eastern Bolivia (Ridgely & Tudor 1994, Sick 1993). Hayes (1995) did not list this species for Paraguay. At Aguara Ñu, RNBM, we recorded *T. torquatus* almost daily in three spells of fieldwork covering the period 24 July-20 December 1997 (JMB *et al.*). A male was mist-netted and photographed on 7 August 1997 (see *Cotinga* 8: 11-12). The species was tape-recorded on numerous occasions, and recordings have been deposited at both the National sound Archive and the Library of Natural Sounds, Cornell. Birds were most commonly observed in dense *campo sujo* or palm cerrado, but were also recorded on the edge of isolated woodland patches.

Although similar to the nominate race of *T. ruficapillus*, *T. torquatus* is markedly smaller with a noticeably shorter tail, and a distinctive male plumage. Males have a black 'skull-cap', not reaching the eye, with a grey face and buffy forehead; white underparts with black barring on throat, breast and belly; olive-brown upperparts with rufous wings; black tail barred white. Females are considerably more difficult to separate, but the smaller size and shorter tail of *T. torquatus* are helpful features. Allowing for individual variation, the songs of *T. ruficapillus* and *T. torquatus* are apparently indistinguishable (M. Isler *in litt.* 1998) and, in Aguara Ñu, *T. torquatus* responded to playback of *T. ruficapillus*.

Given the now confirmed presence of *T. torquatus* at Aguara Ñu, RNBM, the identity of a female *Thamnophilus* sp. at this site on 16 and 18 September 1995, initially considered to be a Rufous-capped Antshrike *Thamnophilus ruficapillus* (Lowen *et al.* 1996, 1997a), is best treated as uncertain pending further research (RPC,

M. and P. Isler *in litt.* 1998, J. Tobias *in litt.* 1997). There are therefore no confirmed records of *T. ruficapillus* from RNBM.

### **BOLIVIAN SLATY-ANTSHRIKE** *Thamnophilus sticturus*

The slaty-antshrike *Thamnophilus (punctatus)* species complex has recently been shown to consist of at least six separate species (Isler *et al.* 1997). No member of this species complex has been reported previously for Paraguay, although the mapped range of the Bolivian Slaty-antshrike *Thamnophilus sticturus* (see Fig. 18 in Isler *et al.* 1997) comes close to extreme northern Paraguay. At Estancia 42 we found *T. sticturus* to be common in the mid-storey of medium-height subhumid forest from 5–12 September 1997 (RPC *et al.*). One male was mist-netted on 8 September 1997 and photographed (Clay *et al.* 1998). Several different calls were tape-recorded, including the distinctive *sticturus* call and Rattle 1 of Isler *et al.* (1997) (M. & P. Isler *in litt.* 1998).

The male caught and all males seen were essentially identical to the description of the species provided by Isler *et al.* (1997), including the pattern of white spots on the inner rectrices, the extensive white underparts, the small bill and grey iris (the last a feature not mentioned in Isler *et al.* 1997, but one that seems to be distinctive of *T. sticturus*, M. & P. Isler *in litt.* 1998). Female plumage (field observations only) was again similar to that described by Isler *et al.* (1997), though the lower underparts seemed to be washed sandy rather than extensively whitish.

It is conceivable that this species has been previously overlooked: Hayes (1995) listed the similar Variable Antshrike *T. caerulescens* as 'common' for Matogrosense. In contrast, we did not record *T. caerulescens* at any of our fieldwork sites in the region and there are no specimens from this region. Therefore, it would appear necessary to re-evaluate previous records of *T. caerulescens* for Matogrosense.

### **SMALL-BILLED ELAENIA** *Elaenia parvirostris*

*Elaenia parvirostris* has been recorded in every geographical region in Paraguay except Matogrosense (Hayes 1995). At Estancia 42 we recorded individuals of this species on 6 and 9 September 1997 (DRC, RPC). Both birds were distinguished from other similar *Elaenia* species, including White-crested Elaenia *E. albiceps*, by the presence of three wing-bars, the strong contrast between relatively bright green upperparts and grey throat, and the yellow-orange base to the lower mandible. These represent the first and second records for the Matogrosense region. *E. parvirostris* is an austral migrant (Parker *et al.* 1996) and our records may refer to southbound migrants.

### **BRAN-COLOURED FLYCATCHER** *Myiophobus fasciatus*

Ericson & Amarilla (1997) provided the first documentation of this species from the Paraguayan Chaco: a juvenile collected in PN Defensores del Chaco, Dpto. Alto Paraguay on 25 March 1995. The second record for the Paraguayan Chaco is of two individuals observed at Estancia La Golondrina, Dpto. Presidente Hayes from 6–9 November 1995 (JMB, B. López Lanús, J. C. Lowen, M. Pearman, MP), which constitutes the first for the Bajo Chaco region. The occurrence of this species in the

Chaco close to the Río Paraguay is not surprising given that it occurs throughout eastern Paraguay (Hayes 1995). However, the juvenile collected so far from the known range of *M. fasciatus* in Paraguay is more surprising.

#### **XENOPSARIS** *Xenopsaris albinucha*

Listed as occurring in two regions in Paraguay: Alto Chaco and Central Paraguay (Hayes 1995). Although there are 'many records' from the Chaco, there are only two records from the Oriente: a specimen collected at Cerro Amambay, Dpto. Amambay, in 1938 and a brief sight record of a bird at Parque Nacional Ybycuí, Dpto. Paraguari (the latter perhaps best treated as hypothetical, F. Hayes verbally 1997). In addition, a single bird was seen at Estancia Ybú, Dpto. Concepción in November 1995 (M. Pearman verbally 1995), and another at Parque Nacional Serranía San Luis, Dpto. Concepción in October 1996 (Robbins *et al.* 1999). These are the first records for the Campos Cerrado region. On 7 October 1997, a single bird was observed in gallery forest beside the Arroyo Guyrakeha at Aguará Ñu, RNBM (IJB, EZE). This latter sighting constitutes either the fourth or fifth record of this species in eastern Paraguay.

#### **HELLMAYR'S PIPIT** *Anthus hellmayri*

Listed as 'hypothetical' in Paraguay, with two reports by Podtiaguin (1944) from the Chaco regarded as unreliable: they lack plumage description and date (Hayes 1995). *A. hellmayri* was first documented in Paraguay at RVS Yabebyry, Dpto. Misiones in October 1995 (Lowen *et al.* 1996, 1997a). We found at least one *A. hellmayri* in campo grasslands at RNP Tapytá on 30-31 October 1997 (DRC, RPC), and a single at Estancia Franco-cué on 5 March 1998 (RPC). Both birds were observed well and the display flight was tape-recorded at RNP Tapytá. They were identified by a combination of heavily streaked upperparts with inconspicuous mantle lines, very fine streaking on the breast and flanks, a relatively closed face pattern, long hind claw and brownish-white outertail feathers. These are only the second and third documented sites for this species in Paraguay and the first and second records for Central Paraguay.

#### **CINNAMON TANAGER** *Schistochlamys ruficapillus*

*Schistochlamys ruficapillus* is widely distributed in eastern Brazil (Sick 1993) and there are three sight records from Argentina (M. Pearman verbally 1998). It is uncommon to fairly common in partially open country such as cerrado, caatinga and disturbed, anthropogenic habitats (Ridgely & Tudor 1989, Sick 1993). Hayes (1995) did not list this species for Paraguay. At Aguará Ñu, RNBM, we recorded two on 26 July (DRC, RPC, MP), and one on 8 August 1997 (CPK), both in the same area of cerrado *sensu stricto*.

All birds were quite small, relatively long-tailed tanagers, with cinnamon ear-coverts, forecrown, sides of neck, throat, breast and breast sides; flanks and belly pale greyish, palest on belly centre; undertail-coverts deep cinnamon; small, neat black face mask; dusky brown crown; uniform greyish upperparts, with darker tail; paler panel in wing formed by pale fringing to secondaries; bill bluish-grey at base, with darker cutting edges and tip; call, a 'cheep' resembling that of House Sparrow *Passer domesticus*.



**CHESTNUT-CAPPED BLACKBIRD** *Agelaius ruficapillus*

*Agelaius ruficapillus* has been recorded in every region apart from Alto Paraná (Hayes 1995). At RNP Ypetí the species was common in marshy areas, 4-6 February 1994 (AMN), with a further sighting of one male on 6 December 1995 (RPC). In addition, Anon. (1993) listed *A. ruficapillus* as scarce at Itakyry in the vicinity of the Itaipú dam, and Pérez & Colmán (1995) detailed two records for the RB Mbaracayú. *A. ruficapillus* is probably a scarce and local resident of wetlands in the region.

**UNICOLORED BLACKBIRD** *Agelaius cyanopus*

Hayes (1995) considered it common in all regions apart from Alto Paraná (not listed). On 5 December 1995 a small party of *c.* 10 (males and females) were observed at RNP Ypetí in vegetation at the edge of an artificial lagoon (RPC), the first record of this species for Alto Paraná.

**DULL-COLOURED GRASSQUIT** *Tiaris obscura*

Widely distributed in western South America from Colombia and locally in northern Venezuela to north-west Argentina (Ridgely & Tudor 1989). Hayes (1995) did not list the species for Paraguay, but Bates (1997) documented one specimen record (collected at Chaco-i, Dpto. Presidente Hayes, 9 October 1945) and a series of eight records in 1995 (at Chaco Lodge and Laguna Salada, both Dpto. Presidente Hayes, 3-4 and 9-10 August 1995). At Estancia 42, we mist-netted one on 8 September 1997 and a photograph appears in Clay *et al.* (1998). Single birds were also seen in medium height subhumid forest on 7 and 9-10 September 1997 (DRC, RPC). These records constitute the first for the Matogrosense region. In addition, there is a specimen of *T. obscura* in the Museo Nacional de Historia Natural del Paraguay (MNHNP 000462), a female collected on 21 July 1983, 7 km from the Mision Nueva Tribu, Cerro León, PN Defensores del Chaco, Dpto. Alto Paraguay. This record is actually the first for the Alto Chaco region, with the 1995 observations the second and third. *T. obscura* has now been recorded in all three regions of the Paraguayan Chaco, supporting the suggestion by Bates (1997) that the species might be widespread in the Chaco, at least during the austral winter.

**RUSTY-COLLARED SEEDEATER** *Sporophila collaris*

Hayes (1995) listed this species for every region except Alto Paraná. However, there are records from at least two sites in this region. At RNP Ypetí it was first recorded on 4 February 1994 (one male, AMN), with a further sighting of three birds (one male) on 30 September 1997 (RPC). Pérez & Colmán (1995) listed three records of this species at RB Mbaracayú, Dpto. Canindeyú and it seems likely to be a scarce inhabitant of wetlands in the region.

**DARK-THROATED SEEDEATER** *Sporophila ruficollis*

Near-threatened (Collar *et al.* 1994). Hayes (1995) treated the occurrence of this species in Alto Paraná as 'hypothetical' on the basis of being reported as questionable at Puerto Bertoni, Dpto. Alto Paraná by Bertoni (1914). At RNP Ypetí two male

*Sporophila ruficollis* and an unidentified female *Sporophila* sp. were seen on 1 October 1997 in the wetlands bordering the Río Monday (RPC). These represent the first documented record for the Alto Paraná region. *S. ruficollis* is presumably a rare migrant through the region.

### **STRIPE-CAPPED SPARROW** *Aimophila strigiceps*

Hayes (1995) listed only two specimens and a report of this species for Paraguay, all in the Alto Chaco region. On 26 September 1997, AMN observed and tape-recorded a group of five to seven *A. strigiceps* at Tte. Estéban Martínez, Dpto. Presidente Hayes. The birds perched in small shrubs and fed on the ground in arid semi-open Chaco thorn scrub. There was no evidence of any breeding activity. This is the third or fourth record for Paraguay, where the species appears to be scarce and local. It is also the first record for the Bajo Chaco region and the furthest east that it has been found in Paraguay.

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*Addresses:* David R. Capper, BirdLife International, Wellbrook Court, Girton Rd, Cambridge CB3 0NA; Robert P. Clay, Guyra Paraguay: Conservación de Aves, Bélgica 165, C.C. 1132, Asunción, Paraguay; Alberto Madroño N., Guyra Paraguay: Conservación de Aves, Bélgica 165, C.C. 1132, Asunción, Paraguay; Juan Mazar Barnett, Av. Forest 1531 1°B, (1430) Buenos Aires, Argentina; Ian J. Burfield and Robert G. Pople, Dept. of Zoology, University of Cambridge, Downing Street, Cambridge CB2 3EJ, UK.; Estela Z. Esquivel, Fundación Moisés Bertoni para la Conservación de la Naturaleza, C. C. 714, Asunción, Paraguay; Corinne P. Kennedy, c/o Orchard Lodge, Grove Bridge, Wantage, Oxon. OX12 7PA, UK; Mirna Perrens, c/o Guyra Paraguay: Conservación de Aves, Bélgica 165, C.C. 1132, Asunción, Paraguay.

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#### APPENDIX 1:

#### Geographical locations of all sites mentioned in text

Site	Department	Coordinates
1 Porto Esperança	Mato Grosso do Sul, Brazil	19°38'S, 57°27'W
2 0.5 km N of mouth of Río Negro	Santa Cruz, Bolivia	20°10'S, 58°09'W
3 Estancia Kamba Aka	Alto Paraguay	19°47'S, 58°44'W
4 Estancia Campo Grande	Alto Paraguay	19°47'S, 58°45'W
5 75 km NW of Puerto Bahía Negra	Alto Paraguay	19°50'S, 58°46'W
6 Estancia 42	Alto Paraguay	20°03'S, 58°25'W
7 Puerto Bahía Negra	Alto Paraguay	20°14'S, 58°10'W
8 Mision Nueva Tribu, Cerro León	Alto Paraguay	20°20'S, 60°30'W
9 Puerto Esperanza	Alto Paraguay	20°25'S, 58°03'W
10 km 1,205, Río Paraguay	Alto Paraguay	20°30'S, 58°01'W
11 km 1,200, Río Paraguay	Alto Paraguay	20°32'S, 58°00'W
12 Fuerte Olimpo	Alto Paraguay	21°03'S, 57°52'W
13 Puerto María Auxiliadora	Alto Paraguay	21°43'S, 57°55'W
14 Puerto La Esperanza	Alto Paraguay	22°03'S, 58°00'W
15 Tte. Estéban Martínez	Presidente Hayes	24°08'S, 59°50'W
16 Estancia La Golondrina	Presidente Hayes	24°59'S, 57°43'W
17 Estancia Ybú	Concepción	23°25'S, 57°25'W
18 PN Serrania San Luis	Concepción	22°40'S, 57°21'W
19 RB Mbaracayú	Canindeyú	24°02'S, 54°18'W
20 RNBM - Jejui-mi	Canindeyú	24°08'S, 55°31'W
21 RNBM - Aguara Ñu	Canindeyú	24°09'S, 55°16'W
22 RNP Itabó	Canindeyú	24°20'S, 54°35'W
23 RB Limoy	Alto Paraná	24°40'S, 54°30'W
24 Itakyry area	Alto Paraná	24°58'S, 55°07'W
25 RB Itabó	Alto Paraná	25°00'S, 54°30'W
26 Estancia La Golondrina/RNP Ypetí	Caazapá	25°33'S, 55°30'W
27 RNP Tapytá	Caazapá	26°12'S, 55°39'W
28 Estancia Franco-Cué	Caazapá	26°24'S, 55°48'W
29 PN Caaguazú	Caazapá	26°04'S, 55°45'W
30 PN San Rafael	Itapúa/Caazapá	26°25'S, 55°40'W